

Proposed Amendments to the Claims:

Please amend claims 1, 22, 28, 38, and 45 as indicated below. Please cancel claim 40. This listing of claims will replace all prior versions and listings of claims in the application:

1. (currently amended) A system of connected computer apparatus, comprising a programmable user processing apparatus for use by a user and at least one storage apparatus, the storage apparatus storing data defining separate components of at least one processing application, wherein the user processing apparatus is configured to fetch data defining components of at least one processing application to be used by the user from the storage apparatus, and wherein the user processing apparatus is configured to install the components so that the components are isolated from each other by placing the components in separate namespaces, wherein access to each of the separate namespaces is controlled by a loader, and wherein the user processing apparatus is configured to permit operational interaction between the components in accordance with defined interaction rules for importing and exporting component functionality between the separate namespaces to enable the application to be used by the user, and wherein the user processing apparatus is configured to re-fetch data defining one or more of the components in accordance with defined rules and to use the re-fetched data for the application[[:]], and wherein the user processing apparatus is configured to arrange and test the components to verify their authenticity and/or to verify the defined interaction rules.
2. (canceled)
3. (previously presented) A system according to claim 1, wherein the user processing apparatus is configured to re-fetch data defining one or more of the components in accordance with user instructions and to use the re-fetched data for the application.
4. (previously presented) A system according to claim 1, wherein the user processing

apparatus is operable to store data defining at least one of the received components after the application is shut down, and to use the stored data when the application is reused by the user.

5. (original) A system according to claim 4, wherein the user processing apparatus is operable to store and reuse the data in accordance with defined rules.

6. (previously presented) A system according to claim 1, wherein the data defining each component defines any further components which are needed by the component, and wherein the user processing apparatus is configured to receive user instructions defining an application, to determine a first component needed for the application, to fetch the first component and identify any further components required, to fetch any further components required, and to continue identifying and fetching components until all of the components for the required application have been obtained.

7. (original) A system according to claim 6, wherein the user processing apparatus is operable to determine the first component from user instructions.

8. (previously presented) A system according to claim 6, wherein the user processing apparatus is operable to determine the first component from a database of components.

9. (canceled)

10. (previously presented) A system according to claim 1, wherein the data defining the components includes interaction rules.

11. (original) A system according to claim 10, wherein the rules defined in the data defining components include rules defining functions within a component which will be made available to other components of a specified type.

12. (previously presented) A system according to claim 1, wherein the user processing

19. (previously presented) A system according to claim 1, wherein the user processing apparatus is configured to test received data defining a component to determine whether the component is from a given supplier.

20. (previously presented) A system according to claim 1, wherein the user processing apparatus is configured to test received data defining a component to determine whether the data defining the component has been changed since it was provided by the supplier.

21. (previously presented) A system according to claim 1, wherein the user processing apparatus is operable to use a given component in a plurality of applications.

22. (currently amended) A system of connected computer apparatus, comprising a programmable user processing apparatus for use by a user and at least one storage apparatus, the storage apparatus storing data defining separate components of at least one processing application, wherein the user processing apparatus is configured to fetch data defining components of a processing application to be used by the user from the storage apparatus, and wherein the user processing apparatus is configured to install the components so that the components are isolated from each other by placing the components in separate namespaces, wherein access to each of the separate namespaces is controlled by a loader, and wherein the user processing apparatus is configured to permit operational interaction between the components in accordance with defined interaction rules for importing and exporting component functionality between the separate namespaces to enable the application to be used by the user, and wherein the user processing apparatus is configured to re-fetch data defining one or more of the components in accordance with defined rules and to use the re-fetched data for the application[[:]], and wherein the user processing apparatus is configured to arrange and test the components to verify their authenticity and/or to verify the defined interaction rules, the user processing apparatus comprising a downloader ~~for downloading~~ configured to download data defining a plurality of separate components of a processing application from one or more external apparatus when the programmable processing apparatus is

connected to the external apparatus[[:]], and the user processing apparatus comprising an installer for installing configured to install the received components to enable the application to be used by a user.

23. (previously presented) A storage apparatus for use in a system according to claim 22, comprising a memory storing data defining at least one component of a processing application to be transmitted to a programmable user processing apparatus.

24.-27. (canceled)

28. (currently amended) A programmable processing apparatus, comprising:
a receiver ~~for receiving~~ configured to receive data defining a plurality of separate components to make up a processing application; and
a loader ~~for installing~~ configured to install the received components to enable the application to be run[[:]], wherein the loader is ~~arranged~~ configured to install the components such that the components are isolated from each other by placing the components in separate namespaces, wherein access to each of the separate namespaces is controlled by the loader, and wherein the loader is configured so-as to permit operational interaction between the components in accordance with defined rules for importing and exporting component functionality between the separate namespaces; and
~~the apparatus further comprising:~~
a verifier ~~for arranging and testing~~ configured to arrange and test the components to verify their authenticity and/or to verify the defined interaction rules.

29. (previously presented) Apparatus according to claim 28, wherein the loader is configured to permit operational interaction between the components in accordance with rules defined in received data defining the components.

30. (original) Apparatus according to claim 29, wherein the rules defined in the data defining components include rules defining functions within a component which will be made available to other components of a specified type.

apparatus is configured to install the components so that the components are isolated from resources of the user processing apparatus, and to permit access by the components to the isolated resources in accordance with defined rules.

13. (original) A system according to claim 12, wherein the user processing apparatus is configured to route each request from a component for access to a resource to a security manager, the security manager being operable to determine whether to permit the access in accordance with pre-stored rules.

14. (previously presented) A system according to claim 1, wherein the user processing apparatus is provided with a virtual machine and is arranged to load each component into the virtual machine.

15. (previously presented) A system according to claim 14, wherein the user processing apparatus is configured to load each component into the virtual machine using a different classloader.

16. (previously presented) A system according to claim 1, wherein the user processing apparatus is configured to provide threads to run each received component, and is further configured to manage the threads such that a component can not change a thread other than one under which it is running.

17. (previously presented) A system according to claim 1, wherein the user processing apparatus is configured to provide threads to run each received component, and is further configured to manage the threads to prevent a component setting the priority of a thread above a predetermined level.

18. (original) A system according to claim 17, wherein the user processing apparatus is configured to set the predetermined level in dependence upon the priority of the threads for running its control functions to ensure that a component cannot override a control function.

31. (previously presented) Apparatus according to claim 28, wherein the loader is configured to install the data so that the components are isolated from resources of the apparatus, and to permit access by the components to the isolated resources in accordance with defined rules.

32. (original) Apparatus according to claim 31, wherein the loader is configured to route each request from a component for access to a resource to a security manager, the security manager being operable to determine whether to permit the access in accordance with pre-stored rules.

33. (previously presented) Apparatus according to claim 28, wherein the loader is arranged to install each component into a virtual machine.

34. (previously presented) Apparatus according to claim 33, wherein the loader is operable to install each component using a different classloader.

35. (previously presented) Apparatus according to claim 28, wherein the receiver is operable to receive data defining a component from a storage medium.

36. (previously presented) Apparatus according to claim 28, wherein the receiver is operable to receive data defining a component transmitted as a signal from an external apparatus.

37. (previously presented) Apparatus according to claim 28, wherein the loader is operable to use a given component in a plurality of applications.

38. (currently amended) A method of operating a programmable processing apparatus, comprising:

receiving data defining a plurality of separate components to make up a processing application;

installing the received components to enable the application to be run, ~~such that~~
wherein the components are isolated from each other by placing the components in
separate namespaces, wherein access to each of the separate namespaces is controlled by a
loader, and so as to permit wherein operational interaction between the components is
permitted in accordance with defined rules for importing and exporting component
functionality between the separate namespaces; and

arranging and testing the components to verify their authenticity and/or to verify
the defined interaction rules.

39. (previously presented) A storage device storing instructions for causing a
programmable processing apparatus to become configured as an apparatus as claimed in
claim 28.

40.-42. (canceled)

43. (previously presented) A programmable processing apparatus for use in a system
according to claim 1, comprising:

means for downloading data defining a plurality of separate components of a
processing application from one or more external apparatus when the programmable
processing apparatus is connected to the external apparatus; and

means for installing the received components to enable the application to be used
by a user.

44. (previously presented) A storage apparatus for use in a system according to claim
1, comprising:

memory means storing data defining at least one component of a processing
application to be transmitted to a programmable user processing apparatus.

45. (currently amended) A programmable processing apparatus, comprising:

receiving means for receiving data defining a plurality of separate components to
make up a processing application; and

loading means for installing the received components to enable the application to be run[[;]], wherein the loading means is ~~arranged~~ configured to install the components such that the components are isolated from each other by placing the components in separate namespaces, wherein access to each of the separate namespaces is controlled by the loading means, and wherein the loading means is configured to install the components so as to permit operational interaction between the components in accordance with defined rules for importing and exporting component functionality between the separate namespaces; and

~~the apparatus further comprising:~~

verifying means for arranging and testing the components to verify their authenticity and/or to verify the defined interaction rules.